CHAPTER 4
STATEWIDE APPROACHES

The varied nature of nonpoint source pollution requires using a two-tiered approach in its management – statewide and watershed approaches. Utilizing a statewide approach, including targeted land use sectors, while also implementing a more bottom up watershed approach provides the right mix of management and technical tools for State and local entities to control polluted runoff. This chapter discusses statewide approaches and Chapter 5 describes watershed approaches.

4.1 The Coordinated Nonpoint Source Management Approach

The Department of Health (DOH) and the Office of Planning coordinate the **statewide** nonpoint source program. Since the submittal of *Hawaii's Nonpoint Source Water Pollution Management Plan* (1990), the DOH established the Polluted Runoff Control (PRC) program, which is currently placed within the Clean Water Branch. The statewide quantification of nonpoint source pollution issues and prioritization of nonpoint source restoration actions is based on several resource tools the program utilizes:

- State 305(b) Report;
- State 303(d) List;
- State Total Maximum Daily Load Strategy;
- Clean Water Act Section 401 Water Quality Certification;
- Clean Water Act Section 402(p) Permits;
- Strategy and Quality Management Plan for Surface Water Monitoring;
- Source Water Assessment Program/Well-Head Protection Program;
- Unified Watershed Assessment, and
- Findings from previously funded Section 319(h) nonpoint source pollution control implementation and demonstration projects.

While DOH and Office of Planning are responsible for coordinating and integrating *Hawaii's Coastal Nonpoint Pollution Control Program*, most of the implementation of the management measures is done by the Department of Land and Natural Resources, the DOH, the Department of Transportation, the United States Department of Agriculture, and the Counties. *Hawaii's Coastal Nonpoint Pollution Control Program Management Plan* describes the role of each of these agencies and the State's regulatory and non-regulatory programs to control polluted runoff for each of the six nonpoint source pollution categories. These pollution categories are essentially categories of land use sectors that contribute to polluted runoff. The six sectors are urban, agriculture, forestry, marinas, hydromodification, and wetlands and riparian areas.

Each sector needs to be addressed statewide. The implementation strategies and actions for each of these sectors are addressed in Chapter 6 of this document. The Department of Land and Natural Resources, for example, manages the State's conservation areas with programs for water resource management, hydromodifications, forestry and wildlife, and management of State lands. County agencies, the United States Department of Agriculture, the DOH, the Soil and Water Conservation Districts, and the United States Department of Agriculture - Natural Resources Conservation Services implement programs for agricultural and rural areas. County agencies, the DOH, the Department of Transportation, and the Department of Land and Natural Resources are the primary agencies implementing programs in urban areas. The Department of

Land and Natural Resources, the Department of Transportation, and the DOH share responsibilities for marinas and recreational boating. All of the agencies above implement wetland management programs.

4.1.1 The Hawai`i Unified Watershed Assessment Plan

Another statewide program, Hawaii's Unified Watershed Assessment Plan will be implemented at the watershed level by developing **watershed-based** projects. To meet long-term goals number 1 and 2 (on pages 2- 9 and 2-11 respectively), the State will continue to prioritize watersheds that drain into Water Quality Limited Segments. Furthermore, as the State collects more water quality and coral reef ecosystem data, it will categorize other watersheds into one of the four categories listed below as part of the State's *Unified Watershed Assessment* (see Appendix C). In watersheds where the State has determined preventive action is needed or where pristine/sensitive aquatic conditions exists, the State will also develop a schedule to target available resources towards these watersheds.

The State's Unified Watershed Assessment came about as result of the Federal *Clean Water Action Plan*. The *Clean Water Action Plan* requested States to categorize watersheds into four categories:

Category I – watersheds in need of restoration;
Category II – watersheds needing preventive action to sustain water quality;
Category III – watersheds with pristine/sensitive aquatic conditions on lands administered by Federal, State, or Tribal Governments;
Category IV – watersheds with insufficient data to make an assessment.

The State's Unified Watershed Assessment categorization process is a management tool that is carried out statewide. Once watersheds are categorized, restoration work is conducted in individual watersheds based on their particular assessment and restoration strategy. This is the most effective way to flexibly address specific priority pollution concerns for a particular watershed. As watershed assessments and restoration action strategies are finalized, they will become part of this document, within the appendices. In October 1998, DOH, the Coastal Zone Management Program and the USDA Natural Resources Conservation Services Hawaii Office submitted to the Environmental Protection Agency (EPA) and the United States Department of Agriculture its Category I watersheds and prioritized the top five.

The interagency Unified Watershed Assessment team and United States Department of Agriculture-Natural Resources Conservation Service's State Technical Committee used the following criteria in designating watersheds/watershed regions into Category I:

- agency interest/focus/existing work that promotes partnerships;
- existing community interest;
- high probability of success and results transferable to similar areas within the State;
- historical and cultural significance; presence of mixed land uses;
- presence of important natural resources;
- presence of water bodies on the DOH's Section 303(d) list of Water Quality Limited Segments;

- geographic diversity with projects for each county; and
- watersheds capturing the uniqueness of Hawai`i.

These criteria are based on national guidance and modified to account for local conditions. A draft Hawaii Unified Watershed Assessment and Watershed Restoration Priorities document was available for public input prior to its being finalized and submitted to EPA and the United States Department of Agriculture.

The priority watershed regions listed below will receive incremental funds, which are in addition to the Polluted Runoff Control's base funds, to implement Watershed Restoration Action Strategies or to conduct watershed assessments.

Priority watershed region and basis for inclusion:

South Molokai (Molokai): Erosion control for water quality improvement, coral reef protection, and historic/cultural preservation. Current projects and partnerships are in place.

Pelekane Bay – Kohala Mountains (Hawaii): Erosion control and resource management for coral reef protection, enhanced recreational usage and historic/cultural preservation. Current projects and partnerships are in place.

West Maui – West Maui Mountains (Maui): Reduce sedimentation and nutrients for water quality improvement, enhanced recreational usage along coastline and habitat improvement in a National Marine Sanctuary, and historic/cultural preservation. Presence of important natural resources. Current projects and partnerships are in place.

Koolaupoko District – Windward Koolau Mountains (Oahu): Habitat restoration and protection, reduction of nonpoint source runoff for enhancement of recreational usage of streams and nearshore waters, and historic/cultural preservation. Mix of land uses. Current projects and partnerships are in place.

Nawiliwili (Kauai): Identification and reduction of nonpoint source runoff to restore habitat and enhance recreational usage. Mix of land uses. Presence of important natural resources.

4.2 Statewide Nonpoint Source Approaches by Partnering Programs

In Hawaii, other partner program or agencies coordinate initiatives utilizing a statewide approach that either directly or indirectly address nonpoint source pollution. The following is a description of some of these statewide initiatives by partner agencies in which the DOH and/or the Coastal Zone Management participate.

4.2.1 Water Quality Certification & CWA Section 402(p)

The DOH-Clean Water Branch implements the statewide National Pollutant Discharge Elimination System (NPDES) and issues Water Quality Certification (WQC). These programs are delegated by EPA. National Pollutant Discharge Elimination System is primarily designed as a tool for states to control or manage point source discharges into state waters. Two components

assist in statewide control of nonpoint source pollution. First, *Clean Water Act* Section 401 Water Quality Certification (WQC) requires "any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into navigable waters, shall provide the licensing agency a certification from the State...that any such discharge will comply with applicable provisions of sections 301, 302, 303, 306, and 307 of this Act[.]" (*Clean Water Act* Section 401(a)). As part of the application for the *Clean Water Act* Section 401 WQC, a Best Management Practices Plan and an applicable monitoring plan must be developed. The Best Management Practices Plan may be required to detail nonpoint source pollution control needs.

Second, under *Clean Water Act* Section 402(p), States issue storm water permits to municipalities with a population of more than 100,000. Presently, the City and County of Honolulu is the only municipality in Hawaii to have a municipal storm water permit from DOH. The State Department of Transportation also has a municipal storm water permit. The State has the ability to place conditions within the permit for municipalities to follow. These conditions include monitoring, implementing activities to reduce nonpoint source pollution, and conducting an outreach campaign to increase the public's knowledge of nonpoint source pollution and how they can be part of the solution. As a result, the City and County of Honolulu has implemented a successful public education campaign and has purchased equipment with State Revolving Fund loans to better capture pollutants before they become part of the urban runoff waste stream.

4.2.2 Coral Reef Initiative

Hawaii participates in the Federal Coral Reef Initiative (CRI), which is cooperatively led by the Department of Land and Natural Resources, DOH, Office of Planning, and the University of Hawaii at the State level and by the United States National Oceanic and Atmospheric Administration and the United States Department of the Interior at the Federal level. The Coral Reef Initiative aims to identify and implement projects to protect the health of coral reef ecosystems. Part of the Coral Reef Initiative will look at land use activities and their associated polluted runoff as it affects coral reef ecosystems. The State may receive funds from this initiative for projects to improve water quality in coral reef ecosystems.

4.2.3 USDA Programs

The United States Department of Agriculture-Natural Resources Conservation Services-Hawaii State Office leads several federally funded programs that contribute resources to Hawaii's efforts in reducing polluted runoff. It coordinates a State Technical Committee that helps determine the use of the United States Department of Agriculture funds for Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentives Program (WHIP), and Forestry Incentives Program (Forestry Incentive Program) annually. The Natural Resources Conservation Services uses this interagency committee to determine statewide issues and geographic target areas for these programs. The Coastal Zone Management (CZM) Program and the DOH serve on this committee to ensure State polluted runoff priorities are integrated with the Natural Resources Conservation Service's activities.

4.2.4 Pollution Prevention Roundtable

The DOH's Solid and Hazardous Waste Branch coordinates the Pollution Prevention Roundtable. This is a forum for State, County, and Industry Sector representatives to work on statewide initiatives or share information related to recycling or waste minimization.

4.2.5 Source Water Assessment Program/Well-Head Protection Program

The DOH's Groundwater Protection Program, within the Safe Drinking Water Branch, is developing the State's Source Water Assessment Plan (Source Water Assessment Plan) and the Well-Head Protection Program (WHPP). Source Water Assessment Plan assesses all drinking water sources as to risk of exposure to pollutants. Source Water Assessment Plan is assisted in its program development by an advisory committee on which the Polluted Runoff Control Program sits. Source Water Assessment Plan demonstration projects are being developed. This effort complements the Well-Head Protection Program and many of the sites are consistent in being located in priority watersheds as designated in the State Unified Watershed Assessment Plan. Source Water Assessment Plan demonstration sites that are also located in Unified Watershed Assessment priority watersheds are the Kilohana Wellfield in the Nawiliwili Watershed Region, the Kualapuu and Ualapue Wells in the South Moloka`i Shoreline Watershed Region, and the Lahaina surface source in the West Maui Watershed Region.

4.3 Resource tools

4.3.1 State Water Quality Monitoring Strategy

The DOH has developed water quality standards for all types of surface waterbodies found in Hawaii. The water quality standards are codified in Hawaii Administrative Rules Chapter 11-54. To ascertain whether water quality standards are being achieved, the DOH implements a water quality monitoring program. The DOH is revising its current strategy for statewide surface water quality monitoring.

The new approach is in the document *Strategy and Quality Management Plan (QMP) for Surface Water Monitoring* (1999 edition). The QMP is made up of several components:

- Surface Water Quality Monitoring Strategy; Surface Water Quality Management Plan;
- Quality Assurance Project Plan for Indicator Organism Counts;
- Quality Assurance Project Plan for Chemistry;
- Quality Assurance Project Plan for Watershed Monitoring;
- Quality Assurance Project Plan for Ala Wai Canal Watershed Monitoring (an urban model); and
- Quality Assurance Project Plan for West Maui Watershed Monitoring (an agriculture and resort model).

Surface water quality monitoring is conducted by the DOH-Clean Water Branch to assess and report on the quality of State surface waters in three high priority categories:

1. possible presence of water borne human pathogens;
2. long-term physical and chemical characteristics of coastal waters; and
3. watershed assessments, including the integrity of natural aquatic communities.

Information gathered as a result of monitoring conducted according to the Quality Management Plan will assist the DOH-Clean Water Branch and the Polluted Runoff Control Program in assessing anthropogenic impacts, including using the data as a guide to selecting best management practices for implementation at problem sites (QMP, 1999). In addition, the QMP is a useful tool for Nonpoint source pollution management because it provides information used in two other resource tools the State utilizes in prioritizing its nonpoint source pollution activities: the *Clean Water Act* Section 303(d) List of Water Quality Limited Segments and its associated computation of Total Maximum Daily Loads, and the *Clean Water Act* Section 305(b) Report.

4.3.2 CWA Section 305(b) Report

As a requirement of the *Clean Water Act*, every two years the State must produce a comprehensive and integrated description of the status of all waters assessed by DOH-Clean Water Branch and other agencies and organizations during the previous two-year period. This report, the *Clean Water Act* Section 305(b) Report, contains numeric and narrative data generated by assessments of State surface waters. It also combines summaries and interpretations of data collected by other agencies and the private sector including the United States Army Corps of Engineers, the United States Geological Survey, the United States Fish and Wildlife Service, Natural Resources Conservation Service, Counties, University of Hawaii, and private consultants. The Report also includes data collected under National Pollutant Discharge Elimination System permit requirements, the *Clean Water Act* Section 401 Water Quality Certifications, and projects sponsored by *Clean Water Act* Section 319(h) funds.

The Polluted Runoff Control Program uses the information from the *Clean Water Act* Section 305(b) Report to geographically target its funds and activities to waterbodies and associated watersheds that are impaired by polluted runoff. In addition, it uses the information to identify priority pollutant targets and probable sources to prioritize funding allotments and program outreach activities.

4.3.3 CWA Section 303(d) List & Total Maximum Daily Loads

Every two years the State must produce a *Clean Water Act* Section 303(d) List of Water Quality Limited Segments which contains the names of waterbodies that consistently exceed State Water Quality Standards due primarily to excessive pollutant loads from nonpoint source pollution. The *Clean Water Act* Section 303(d) List also lists pollutants exceeded in each listed waterbody and includes maps of each waterbody. All listed *Clean Water Act* Section 303(d) Water Quality Limited Segments are required to reduce pollution loads through the computation and implementation of Total Maximum Daily Loads (Total Maximum Daily Loads). Total Maximum Daily Loads are numeric estimates of the maximum pollutant delivery rates that can

be assimilated by water bodies without exceeding State Water Quality Standards for that water body type.

The Polluted Runoff Control Program uses the *Clean Water Act* Section 303(d) List to prioritize watersheds that need additional attention to reduce nonpoint source pollution loads. This prioritization is used when allocating grant funds to projects.

The State's Unified Watershed Assessment Interagency Team also uses the *Clean Water Act* Section 303(d) List as one of its criteria in identifying Category I watersheds, makes these priority watersheds for receiving **incremental** *Clean Water Act* Section 319(h) Unified Watershed Assessment Funds. All Category I Unified Watershed Assessment Watersheds must have developed a watershed assessment and restoration action strategy prior to receiving implementation funds. Total Maximum Daily Loads will be used as part of a watershed assessment and restoration action strategy. Conversely, if a Unified Watershed Assessment/Watershed Restoration Action Strategy is already developed prior to a Total Maximum Daily Load, that Unified Watershed Assessment will be used to assist in developing the Total Maximum Daily Load for that particular waterbody.

4.3.4 Source Water Assessment Program and Well-Head Protection Program

As mentioned before, DOH's Groundwater Protection Program (GWPP) is cooperatively managing the State's Source Water Assessment Program (Source Water Assessment Plan) and the Well-Head Protection Program (Well-Head Protection Program). Source Water Assessment Plan delineates source water protection areas, inventories potential and existing sources of contamination, determines the susceptibility for contamination, and provides linkages and outreach to related programs and the public. Source Water Assessment Plan complements the Well-Head Protection Program and may even embody the Well-Head Protection Program as Source Water Assessment Plan completes statewide assessments. Source water protection areas, typically larger than well-head protection areas, may eventually have Best Management Practices implemented to prevent or reduce the risk of source water contamination.

The Polluted Runoff Control Program will use Source Water Assessment Plan's source water delineations to prioritize geographic targets in focusing grants towards project implementation. Information developed in the Source Water Assessment Plan process will be of assistance to the Polluted Runoff Control Program as it works with local entities to develop watershed assessments. Conversely, any information developed as a result of a watershed assessment would be provided to the GWPP for its Source Water Assessment Plan.

4.4 Projects for priority areas and sectors

The State's protracted economic slump through the past decade has severely restricted State and County budgets. Consequently, the State intends to use funds received through section 319(h) of the *Clean Water Act* and section 6217 of *Coastal Zone Act Reauthorization Amendments of 1990* to initiate implementation actions and encourage other agencies to target resources towards the high priority watersheds until more resources are available at the State and

County level. The State also intends to make available and encourage the use of State Revolving Funds for polluted runoff control projects.

Hawaii has designated 18 water quality limited segments on the State's section 303(d) list. The State targets some of its base section 319(h) resources and all of the incremental section 319(h) resources towards projects in areas that drain into one of the water quality limited segments. The DOH's section 319(h) grants scoring sheet reflects the State's priorities (see Appendix D). As previously mentioned an additional resource to fund projects in priority land areas is the incremental section 319(h) funds for the Hawaii Unified Watershed Process (see Chapter 5).

Hawaii will address polluted runoff through a statewide approach based on land use sectors. Hawaii has identified agriculture and urbanization as the land use sectors that contribute the most significant amount of human induced polluted runoff. Specific strategies and plans for these all sectors are addressed in Chapter 6 of this document. Erosion and sediment control is a common pollutant issue, which will be addressed in several ways such as revising erosion and sediment control ordinances for some counties by 2003, augmented by development of an urban BMP manual. Agriculture is in transition from large plantations to smaller diversified truck crop farms. Many of these farmers are new to the industry or have English as a second language, so there is a need to expand multi-lingual cooperative extension efforts to this sector, including the translation of pollution prevention strategies for the farmers. Finalization of the Hawaii version of the national Farm*A*Syst Program and its implementation will assist land users in this sector with meeting agriculture management measures. This program will be finalized by the end of 2000, and the State will sponsor its implementation in 2001.

Since the completion of *Hawaii's Nonpoint Source Water Pollution Management Plan* in 1990, the State has supported the development of numerous best management practices to control polluted runoff on a statewide basis. In *Hawaii's Coastal Nonpoint Pollution Control Program Management Plan* (1996) there are fifty-seven management measures presented as goals for addressing polluted runoff from six major land use sectors. For each management measure there are several management practices, also known as best management practices, presented within *Hawaii's Coastal Nonpoint Pollution Control Program Management Plan*. When implemented, these best management practices will assist the land user in achieving the goal of the management measure. In some cases, there has been a lack of best management practice options for land users to implement, making it difficult for them to meet the management measures for their activity. Therefore, the DOH has sponsored the development and distribution of innovative best management practices to assist land users in achieving these management measures. A summary of these best management practices appears in Table 4-1. The list of best management practices within Table 4-1 augments those listed within Part III of *Hawaii's Coastal Nonpoint Pollution Control Program Management Plan.* The State will continue to support and encourage the development and use of best management practices, especially to control polluted runoff from sources known or anticipated to be major contributors of water quality problems.

Table 4-1 Summary of Innovative Best Management Practices Developed for Hawaii
• Integration of aquaculture and taro production • Range management • Maintenance on former sugarcane fields • Dry forest, wetland, and coastal revegetation projects • Erosion control practices on agricultural roads • City & County of Honolulu stormwater pollution reduction equipment • Best Management Practices installed on lychee and coffee • Dry litter animal waste control system • Roadcut revegetation project • Feral animal control • Best Management Practices installed on sugarcane fields & pineapple fields • Testing effectiveness of storm drain filters for debris & pollutant trapping • Maui County and City & County of Honolulu erosion control standards improvement; inspector, agency, and consultant training

4.5 Statewide Education, Outreach, & Technology Transfer

The State considers public education and outreach significant tools in reducing polluted runoff. Each person plays a role in contributing to the nonpoint source waste stream, particularly in urban/residential areas. DOH's goal is to educate the public, government officials, industry groups, and land users about the causes and effective control of nonpoint source pollution. Table 4-2 below illustrates the varied targets and media used in the approach developed by the Polluted Runoff Control Program. The State will continue to allocate a portion of its Section 319(h) grant to outreach efforts, as it has since 1990.

Table 4-2 Education and Outreach Programs	
TARGET AUDIENCE	**EXAMPLES OF EDUCATION & OUTREACH**
General Public	Storm drain stenciling; Earth Day presentation/booth; State Farm Fair booth; NPS television commercial; "Alternatives to Household Hazardous Materials" pamphlet; NPS brochure; "Septic Tank Maintenance" brochure
Students	Salt Lake Environmental Awareness Day presentation /field activities; presentations at Manoa School Environmental Day, Momilani & Waiau Elementary Health Fairs; "Kidscience" & "Exploring the Islands" television programs; NPS brochure & poster; A`poha video & coloring book; "In the Clear Blue Sea" & "Under the Hawaiian Sky" stage plays & videos (developed by DLNR, sponsored by DOH); lecture/presentations to high schools & Universities
Land Users & Industry	Required public education component in 319(h) grants has resulted in field days, presentations to trade associations or State Technical Committee on NPS, publication of articles in business & industry trade magazines, and project report distributions; participation in DOH-sponsored pollution prevention workshops for gas stations, mechanical repair shops, State and federal military units; funding of boaters' guide to pollution prevention during maintenance
Cultural Groups	Translation of NPS materials into Hawaiian, Samoan, and Ilocano languages; with Sea Grant, training practitioners caring for Hawaiian fishponds to monitor pond water quality

The Department of Health (DOH) encourages other agencies and organizations to target resources towards improving water quality in Water Quality Limited Segments and in areas where significant threats to water quality are present. The State Technical Committee, quarterly meetings hosted by United States Department of Agriculture Natural Resources Conservation Services, and the Hawaii Association of Conservation District annual and quarterly meetings provide forums for Federal, State, County, and non-government partners to discuss nonpoint pollution control issues and focus their collective resources upon implementing on-the-ground management practices to address priority 303(d)-listed impairments. Because the Soil and Water Conservation Districts are leading the efforts to prepare and implement watershed restoration action strategies in priority watershed regions, they will provide updates at these forums regarding the effectiveness of the strategies. As noted in Chapter 3, agreements among these entities have led to improvements in Best Management Practice implementation, water quality, and educational activities.

The State will continue to communicate its priorities to government agencies, businesses, non-government organizations, and other stakeholders and actively solicit public comments. The

State participates in numerous forums that meet regularly to discuss polluted runoff controls. These regular meetings, conferences, and events give the State an opportunity to present its programs and get feedback from stakeholders. The DOH and the Office of Planning will continue their efforts to meet with interested parties outside of Honolulu to ensure that program priorities are communicated statewide and to provide feedback channels. The counties coordinate various district or islandwide development plans along with county drainage plans or grading ordinances. As these documents are developed, the State will review and provide comments in reference to urban management measures such as watersheds and new developments in *Hawaii's Implementation Plan for Polluted Runoff Control*.

The State has and will continue to sponsor demonstration projects that develop new, innovative approaches to Nonpoint source pollution management. The Polluted Runoff Control Program will take a more active approach in promoting the results and encourage further implementation of successful demonstrations. One approach will be to compile a document that includes such findings and distributes it to (relevant) landusers and industry sectors.

4.6 Statewide Planning, Management, and Evaluation

The State has established a planning, management, and evaluation system for the Clean Water Act funds its receives that includes:

1. submitting an annual workplan and grant application;
2. implementing management projects;
3. preparing project reports and conducting site inspections
4. preparing end-of-the-year reports; and
5. evaluating the effectiveness of programs every five years.

4.6.1 Annual Workplan and Grant Application

The Department of Health (DOH) annually submits a workplan and grant application to EPA to obtain the State's allocated *Clean Water Act* Section 319(h) funds. Hawaii drafts a workplan and meets with an EPA Region IX official to discuss and negotiate the submitted draft. Annual workplans will be drafted using *Nonpoint Source Program and Grants Guidance for Fiscal Year 1997 and Beyond, Hawaii's Nonpoint Source Water Pollution Management Plan,* and *Strategic Plan for Hawaii's Environmental Programs* as guiding documents.

After annual grant negotiations, DOH will revise necessary portions of its draft workplan and submit it as a final workplan along with a grant application to EPA Region IX for its approval and award. EPA will make the official grant award to the State in October, the start of the new federal fiscal year. Workplans and grant applications can be revised throughout the life of the grant. The process entails DOH specifying changes in a letter of request to EPA Region IX. Once EPA Region IX approves the revisions, the Department will be notified, making the revised workplan official.

In its annual workplan, the DOH specifies amount of labor and State and federal fiscal resources allocated to each specific activity. These activities are grouped under categories of Program Administration, Planning, Program Implementation, Projects, and Public Education.

To provide flexibility to many of the grant recipients, the Department will continue to keep multiple grants open with EPA so that project has sufficient time and resources to be successfully completed. Once the State completes all committed tasks from a grant workplan, it closes that grant. Within three months from close of grant, the Department will submit appropriate documentation to close out its grant. This documentation includes a financial status report submitted by the Department's fiscal office. This financial status report includes a summarization of grant expenditures and match documentation.

4.6.2 Management of Projects

Purpose of Projects: Each year the DOH oversees numerous new, often multi-year projects. These projects are one tool utilized by the State to promote a reduction of polluted runoff. *Clean Water Act* Section 319(h) requires projects to:

- demonstrate new or innovative approaches to reducing polluted runoff;
- implement proven best management practices;
- implement watershed assessments or restoration strategies;
- implement an identified program, activity, or strategy from the *Hawaii's Nonpoint Source Pollution Management Plan*; and
- implement educational, outreach, and technology transfer projects.

These projects are reviewed by the DOH, an Interagency Nonpoint Source review team, and EPA and are identified in the annual workplan. The DOH funds the projects through grants or loans. It will continue to follow all required State rules on requesting proposals and contracting procedures when recruiting applicants for grants.

The DOH maintains all fiscal and implementation oversight over the selected projects by entering into a contract with the grantee. All contracts between the Department and the grantee require an Attorney General approval. All contracts contain an approved workplan submitted by the applicant to the Department. All workplans must detail the following: project manager, nonprofit identification number if applicable, project purpose, geographic location, implementation milestones with budget, monitoring strategy, coordination with other agencies or activities if applicable, quarterly status reports and final report dates, and expected results. In addition, the DOH will continue to supply sample billing statements, sample grant fiscal budget, sample match documentation, and copies of federal grant rules to the grantee.

Projects may be funded from any of the following: *Clean Water Act* Section 319(h) core grant, *Clean Water Act* Section 319(h) incremental grant for the Federal Clean Water Action Plan (CWAP), the Clean Water Act State Revolving Funds (SRF), or other special grants. All projects will be placed on a database program (EXCEL) so that milestones, funds available, and match can be easily monitored. Project selection is based on Federal guidance and State

Management Plan guidance. Accepted Applicants/Grantees can expect to have a final contract within six to twelve months from project recruitment.

Request for Proposal Process: In its annual call for proposals, the Department will continue to include a grant application kit that is sent to targeted organizations and to those who request it. The DOH will continue to advertise the grants following State procedures concerning "call for proposals." In addition, to get a wider audience for promoting grant opportunities, the Department will place public notices in each major island daily paper, Office of Environmental Quality Control "Environmental Notice" and put out a press release. Besides including the actual application, the application kit will include information on how to apply for a *Clean Water Act* section 319(h) grant or for a *Clean Water Act* SRF loan.

Selection Criteria: A listing of priority water bodies, their major pollutants, and maps of their associated watersheds are included in the information packet. This listing is based on the State's Section 303(d) list of impaired water bodies and includes target pollutants for each water body. In the project selection process, a project located in a watershed that drains to one of the listed priority impaired water bodies is scored higher. A second critical priority that gives proposals higher ranking is that the proposal implements a portion of the *Hawaii's Nonpoint Source Water Pollution Management Plan* and/or *Hawaii's Coastal Nonpoint Pollution Control Program Management Plan*. These plans identify numerous management measures and designated lead agencies. Interested lead agencies may use grant funds to implement their identified role in carrying out Nonpoint source pollution management. Prioritization is also given to projects that demonstrate a new or innovative Best Management Practice or approach to Nonpoint source pollution management. The grant kit also discusses pollution reduction priorities and public education and outreach priorities.

Evaluation: Federal grant funds for demonstration projects or projects that implement a portion of the State Management Plan are limited. Project selection is competitive. A project selection is based on how well it addresses the following selection priorities:

- controls a pollutant in a listed priority watershed;
- implements a portion of the State Nonpoint Source Management Plan;
- implements a project identified as part of watershed restoration strategy for a Unified Watershed Assessment area;
- implements a statewide pollution or public education goal;
- demonstrates a high likelihood of success based on fulfilling all application components including meeting match and time frame requirements, a thorough workplan with milestones listed, appropriate monitoring and/or environmental indicators to gauge effectiveness, a clearly identified project lead; and
- promotes interagency cooperation.

Appendix D has the current grant application form and scoring sheet. The application form and priorities may change as a result of revised priorities in subsequent years.

4.6.3 Clean Water Action Plan Incremental Section 319(h) Funds for Unified Watershed Assessments and Watershed Restoration Action Strategies

Projects that result from development of the State's Unified Watershed Assessment and Watershed Restoration Action Strategies or from special funds will be selected and implemented based on the specific federal guidance attached to those funding sources (see Chapter 6 for Unified Watershed Assessment/Watershed Restoration Action Strategies approaches). *Clean Water Action Plan* projects fall into two categories. The first type is the implementation of watershed restoration activities from an approved Watershed Restoration Action Strategy. These projects must be located in specific prioritized watersheds. The Department is assisted by its Hawaii Unified Interagency Watershed Assessment Advisory Team (HUIWAA) and EPA Region IX in this process. The identified projects must have an approved workplan and contain similar workplan components as the open 319(h) grants.

The second type of *Clean Water Action Plan* projects are those that are undertaken within specific watersheds annually designated by the Department and its Hawaii Unified Interagency Watershed Assessment Advisory Team, along with EPA Region IX review. These watersheds lack an assessment or restoration strategy. The project will focus on designing a specific watershed assessment of nonpoint source pollution issues and Watershed Restoration Action Strategies to control it. These Watershed Restoration Action Strategies will be used as a basis for funding decisions for future incremental implementation funds. The Department will continue to provide specific guidance on components that should be included in the assessment and restoration strategy.

4.6.4 Project Reporting and Inspection

Every project funded by the Department must provide a quarterly status report. The Department reviews these reports based on the commitment in the contract and workplan. Any deficiencies in reporting will cause the Department to follow up with the contractor, possibly withholding payment or discontinuing the contract if reporting problems continue. The Department staff reviews all billings prior to approval to pay the contractor. If billing is inaccurate or there is no documented match provided, the Department will not approve the billing until these items are corrected.

The Department will continue to make biennial site visits to each project. The Department documents all findings from the field visit or meeting and makes a determination if the project is progressing as scheduled. If lack of progress is noted the Department will meet with contractor to specify areas needing attention. If progress is still lacking the Department will discontinue payment of grant until the contractor's project satisfactorily meets the contractual obligations.

As a project nears completion, the Department has a policy to withhold payment of the final ten percent on a grant until the Department makes a final site visit and approves the final project report, and all fiscal requirements have been met by the grantee.

4.6.5 *End of Year Reports*

The DOH will continue to submit an Annual End-of-Year Report to EPA. The report summarizes specific grant activities to which the Department had committed in its grant workplan. This report reflects successes and failures in carrying out program administration, implementation, planning, and public education. This report also summarizes the progress or final outcomes of projects to which the department awarded grants. Information on projects sponsored from loans, projects from the *Clean Water Action Plan* allocation, and projects sponsored from special funds are also summarized (see Appendix E for information regarding categories for which section 319(h) grants were distributed from 1990 through 1997).

4.7 Summary of Past Polluted Runoff Control Program Activities

The DOH Polluted Runoff Control Program (Polluted Runoff Control) operates primarily with federal funds from EPA. It negotiates a Management Workplan with the EPA in advance of each federal fiscal year. (Federal fiscal years start on October 1 each year and are named for the year in which they end; thus FY95 stands for the federal fiscal year which began October 1, 1994 and ended September 30, 1995.) The following activity information is taken from the End-of-Year reports to EPA for FY94 through FY98.

FY94: the Polluted Runoff Control staff developed a draft Nonpoint Source Program Strategic Plan and worked on the development of the *Coastal Zone Act Reauthorization Amendments of 1990* Plan. They developed a series of watershed awareness days to bring attention to the effect of upstream activities on the Ala Wai Canal, involving community groups and local legislators. A quarterly nonpoint source newsletter was also initiated. DOH awarded four Section 319(h) grants primarily for Best Management Practice and demonstration projects on agricultural lands.

FY95: with a reduction in both staff and State funding, the Polluted Runoff Control Program used membership in various interagency committees to advocate its agenda. It sponsored two volunteer water quality monitoring projects: the Kailua Bay-Waimanalo Bay (O`ahu) project which produced a working guide for other volunteers on developing a water quality monitoring program, and the Ala Wai School-based Volunteer Monitoring project which worked with junior and senior high school students and developed an Internet-based information data base. Three of the Section 319(h) projects were featured on television news, 16,000 A`poha coloring books were distributed, and A`poha water quality videos were distributed to all State libraries and public and private elementary schools. In addition, the Polluted Runoff Control Program was moved from the Environmental Planning Office into the Clean Water Branch.

FY97 (includes FY96 workplan activities as result of policy change to bring Section 319 grants into line with other EPA grant cycles):
The Polluted Runoff Control Program, in cooperation with the Hawaii Coastal Zone Management Program, invested much time during the two fiscal years resolving concerns and differences about the draft Hawaii CNPCP with EPA and United States National Oceanic and Atmospheric Administration. The Polluted Runoff Control Program continued involvement with various interagency committees, including its lead work with the Hawaii Technical Committee

on Nonpoint Source; the Program also assisted with both the 1996 and 1997 workshops of the Interagency Water Quality Action Program Training Committee. Fifteen Section 319(h) education or implementation projects were active during this grant period, of which four were completed. Public education and outreach was carried out through displays at a number of venues throughout the year, including the Palama Settlement Community Day which allowed the Program to present information to a public housing audience not often reached. Storm drain stenciling was again conducted statewide. Blockbuster Video Company finally agreed to carry the A`poha children's video as a free checkout item.

FY98: Eighteen Section 319(h) projects were in various stages during this fiscal year, including three projects which were completed and six new projects. The Hawaii CNPCP finally received conditional approval from EPA and United States National Oceanic and Atmospheric Administration on June 30, 1998 after a continuing series of meetings and exchange of documents. An important action was the Memorandum of Agreement (MOA) between DOH and the CZM Program which allowed Coastal Zone Management to fill a unfunded, vacant planner position by using Section 319 funds. The planner will focus on HCNPCP Implementation Development and the upgrading of the Hawaii Nonpoint Source *Clean Water Act* Section 319 Management Plan. As a part of the former, the Polluted Runoff Control Program and Coastal Zone Management co-sponsored the establishment of the Polluted Runoff Forum (PROF) to assist in development of the Implementation Plan. (See Appendix B for a list of PROF members) The Polluted Runoff Control Program took on the lead coordinating role for the State's response to the federal Unified Watershed Assessment (Unified Watershed Assessment), an initiative arising from the Clean Water Action Plan.

Heavy involvement with the Ala Wai Canal Watershed Improvement Project subwatershed projects developed during the grant period, along with fiscal and oversight responsibilities for West Maui Watershed nonpoint source pollution projects. Initial contacts were also made with the Kailua Bay Advisory Council, which is administering a multi-million court settlement focused on the Ko`olaupoko (O`ahu) watersheds. Participation in various committees continued, as did public education and outreach activities.

A final important accomplishment was the integration of recruitment and selection of nonpoint source control projects as part of the DOH-Wastewater Branch's implementation of the CWA-SRF for Hawaii. The Polluted Runoff Control Program worked with DOH-Wastewater Branch to modify its policy and procedures document to make nonpoint source projects eligible for SRF loans. The Polluted Runoff Control Program has modified its project solicitation process to include SRF loan applicants and developed outreach meeting to encourage the application for SRF loans to assist in nonpoint source pollution management. Consequently, nearly four million dollars will be lent by the year 2000 through the SRF loan process to county applicants for nonpoint control projects.

4.8 Memorandum of Agreement (MOA) between Department of Health and Department of Business, Economic Development, and Tourism

This MOA, signed in late 1997, allows the two agencies to accomplish tasks that are mutually beneficial: development of the Implementation Plan for *Hawaii's Coastal Nonpoint Pollution Control Program* and the upgrading of *the Hawaii Nonpoint Source Water Pollution Management Plan*. Coastal Zone Management had a Planning and Policy Analyst (Coastal Zone Management Planner) position, but no funding, while DOH had funding but no position. Through the MOA, DOH transferred *Clean Water Act* Section 319(h) funds to Coastal Zone Management to fund the position. The Coastal Zone Management Planner position has been staffed since January 1998.

The responsibilities of the Coastal Zone Management Planner under the MOA are:

- coordinate the development of *Hawaii's Implementation Plan for Polluted Runoff Control*;
- coordinate with the PROF on the development of the Implementation Plan;
- incorporate federal comments, as appropriate, into *Hawaii's Implementation Plan for Polluted Runoff Control*;
- assist the DOH in developing an internal strategy to implement its components of *Hawaii's Implementation Plan for Polluted Runoff Control*;
- work with DOH to improve the integration of *Hawaii's Coastal Nonpoint Pollution Control Program Management Plan* and the *Hawaii's Nonpoint Source Water Pollution Management Plan* into one comprehensive plan for the statewide management of polluted runoff (*Hawaii's Implementation Plan for Polluted Runoff Control*);
- assist in educating agencies, land users, and community organizations about *Hawaii's Implementation Plan for Polluted Runoff Control*; and
- work with DOH to solicit projects, to be funded under Section 319 of the Clean Water Act, that demonstrate Best Management Practices or implement policies that achieve the goals, guidelines, and/or management measures of *Hawaii's Implementation Plan for Polluted Runoff Control*.

In addition to using programmatic indicators in annually evaluating the Department's success in managing polluted runoff, the Department will increasingly utilize environmental indicators to gauge effectiveness. These environmental indicators will be based on those suggested for polluted runoff from the Department's Environmental Management Advisory Group (EMAG). The Department will also utilize improvement of water quality standards in priority watersheds as an environmental indicator of the success of the program. These watersheds will have had a complete Unified Watershed Assessment/Watershed Restoration Action Strategies and been implementing projects for two years. It is assumed that over time as project after project is implemented in the targeted watershed, a critical mass of best management practices will be present to reduce the runoff issues in these specific geographic target areas so that there will be noticeable water quality improvements there. To assess improvement in this area, the Department will use the information collected and placed in the *Clean Water Act* 305(b) report.

4.8.1 Approach for Evaluation of Program Effectiveness

The State intends to update *Hawaii's Implementation Plan for Polluted Runoff Control* every five years. At the fifth year of each five-year period, the State will evaluate its progress towards reaching the long-term goals and develop 5-year implementation plans. The 5-year implementation plans will show how agencies and organizations are implementing the management measures and the steps needed to fully implement them.

The State will base its 5-year evaluation on water quality monitoring data and information from the implementation of statewide and watershed based projects. The State is interested in identifying the programs, projects, Best Management Practices, and partnerships that lead to improvements in water quality as well as identifying new sources of nonpoint pollution that may not be adequately addressed. Thus, information from agencies, businesses, non-government organizations, and other stakeholder groups will be incorporated into the State's evaluation and 5-year implementation plans.

Annually, EPA reviews DOH's Polluted Runoff Control Program and management of its *Clean Water Act* Section 319(h) grant. Information from each annual review will be used to intermittently evaluate the program and be included into the State's evaluation and 5 year implementation plans. Information from the *Clean Water Act* Section 305(b) report will also be used in the evaluation process.

4.8.2 *Activities to be evaluated every five years*

1. water quality monitoring data and plans;
2. effectiveness of partnerships to implement statewide and watershed based programs;
3. effectiveness of the development and implementation of watershed restoration action strategies;
4. ability of United States National Oceanic and Atmospheric Administration, EPA, and the State to secure funds for *Hawaii's Implementation Plan for Polluted Runoff Control*;
5. assessment of technical needs to implement polluted runoff controls;
6. implementation of management measures;
7. public participation; and
8. effectiveness of rotating watershed assessments.

Statewide management of water quality is only part of the solution to Hawaii's nonpoint source pollution problems. To completely address the impacts of nonpoint source pollution, requires the ability to build on the existing foundation of community networks within the State. The "watershed approach" attempts to improve water resources in the State by coordinating partnerships at all levels and performing restoration activities on a watershed basis. The community serves as the lead organization in the watershed approach. The next chapter discusses the importance of a watershed-based approach and its applicability to Hawaii.

Summary of Activities by Year

2000
- Produce a Clean Water Act Section 303(d) list of Water Quality Limited Segments.
- DOH's Polluted Runoff Control Program will receive an official grant award from EPA.

2003
- Evaluate Hawaii's Coastal Nonpoint Pollution Control Program Implementation Plan by contacting and meeting with stakeholders.
- Develop Phase II implementation strategies with agencies and stakeholder groups based on the evaluation.
- Prepare draft 5-year implementation plan for Phase II.
- Conduct public meetings to review and solicit comments on the draft 5-year implementation plan for Phase II.
- Complete 5-year implementation plan for Phase II.
- Convene a meeting and/or conference with representatives from watershed projects to get feedback on the implementation of watershed restoration action strategies.
- Form focus groups to develop preliminary assessments and recommendations on WRASs.
- Conduct public meetings to solicit comments on the assessments and recommendations on WRASs.

2008
- Begin evaluation of Phase II and assess progress towards achieving the long-term goals.
- Complete 5-year implementation plan for Phase III.

2013
- Achieve long-term goals

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